

Title (en)

MASS ANALYZER WITH MASS FILTER AND ION DETECTION ARRANGEMENT

Title (de)

MASSENANALYSATOR MIT MASSENFILTER UND IONENDETEKTORVORRICHTUNG.

Title (fr)

ANALYSEUR DE MASSE A FILTRE DE MASSE AMELIORE ET ENSEMBLE DE DETECTION DES IONS

Publication

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Application

EP 04714589 A 20040225

Priority

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- US 37477103 A 20030225

Abstract (en)

[origin: US2004164241A1] An improved mass analyzer is set forth. In accordance with one embodiment, the mass analyzer employs a unique mass filter design that comprises an ion selection chamber in which ions are selected for detection based on their mass-to-charge ratio (m/Q) by subjecting them to a non-rotating, oscillating electric field that, ignoring any fringing effects, oscillates principally in a single coordinate plane (i.e., the y-z plane). The ions may be injected into the ion selection chamber at a significant angle with respect to the inlet of the chamber and in the single coordinate plane to raise the m/Q resolution to the desired level. In accordance with a further embodiment of the mass analyzer, an ion detection surface is arranged at the outlet of the ion selection chamber so that ions falling within a predetermined exit angle range are detected to the general exclusion of ions having other exit angles.

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